

Investigation Report  
Industrial Solid Waste Registratin No. 31479  
Nalco Chemical Company  
Rt. 1, Box 213F  
Odessa, Texas 79760  
Telephone (915/563-2125)

I. Introduction

A. Identification

Nalco Chemical Company is an oilfield chemical warehouse and transport company. Nalco Chemical Company stores and transports corrosion inhibitor, scale inhibitor and emulsion breakers used in the servicing process of oil wells. The facility is located at County Road 128 West and U.S. Highway 80, two miles west of F.M. 1788, the property is legally described as Block 41, Section 13 Township 2-South, in the Midland County Deed Records (See Map).

B. Permits and/or Registrations

1. Solid Waste Registration No. 31479
2. EPA Identification No. TXD095217766

C. Registration Provisions.

See attached solid waste registration (Attachment A)

D. Background Information

Nalco Chemical Company began operations at the present Permian Basin facility when the land was purchased from Abbott Building Company in May of 1976.

On October 20, 1976, Nalco Chemical Company was issued a Temporary Order No. 76-57E authorizing the operation of a wastewater retention and evaporation system at the Permian Basin facility (See Attachment B).

On November 19, 1976, the Texas Water Quality Board ratified Temporary Order No. 76-57E issued to Nalco Chemical Company (See Attachment C).

On April 9, 1979, Nalco Chemical Company was issued Industrial Solid Waste Registration No. 31479 and was also requested to complete and submit an industrial solid waste management inventory.

On December 18, 1979, District 10 personnel visited Nalco Chemical Company's Permian Basin facility for a solid waste management compliance inspection. Nalco Chemical Company was determined to be in accordance with Texas Department of Water Resources Rules pertaining to the proper storage, handling and disposal of industrial solid waste.

On February 4, 1980, the EPA conducted a potential hazardous waste site identification and preliminary assessment of Nalco Chemical Company's Permian

90068672



Basin facility via a complaint. The circumstances described in the complaint were determined not to be connected with any operations taking place at Nalco Chemical Company.

On November 18, 1980, Nalco Chemical Company was issued a Notice of Violation letter stating non-compliance with the reporting requirements contained in the Industrial Solid Waste Management Regulations, Rules 156.22.01.001-.014 of the Texas Water Development Board. Nalco Chemical Company failed to submit monthly summaries concerning the shipment of solid waste from the above facility for the months May-December, 1979 and January-July, 1980 (See Attachment D).

On December 3, 1981 Nalco Chemical Company submitted a completed hazardous waste summary form stating that the skimming from their oil-water separator is hazardous by having a flashpoint of less than 140°F. and should be assigned an EPA hazardous waste code no. of D001 (See Attachment E).

On February 17, 1982, Nalco Chemical Company was sent a letter from our Austin headquarter's Solid Waste Section requesting additional information concerning an Affidavit of Exclusion - Application No. 10603 which was submitted for the purpose of withdrawing the hazardous waste permit application for Nalco Chemical Company's Permian Basin facility.

On June 21, 1982, Nalco Chemical Company was sent a letter from our Austin headquarter's Solid Waste Section requesting additional information concerning possible beneficial re-use of wastes generated at Nalco Chemical Company's Permian Basin facility.

On July 21, 1982, Nalco Chemical Company submitted a letter to our Austin headquarter's Solid Waste Section in response to a letter sent to Nalco Chemical Company on June 21, 1982 from our Austin headquarters requesting additional information of waste management practices for review of their Affidavit of Exclusion. In the letter Nalco states that all waste waters collected in the surface impoundment are applied to oil field leases in a diluted form of flush water constituting beneficial re-use of the waste-water (See Attachment F).

On October 6, 1982, District 10 representatives visited Nalco Chemical Company's Permian Basin facility for an industrial solid waste compliance inspection. During the inspection waste management facilities were observed. A hazardous waste determination on the liquid in the surface impoundment was requested from Nalco Chemical Company in order to determine if groundwater monitoring should be implemented (See Attachment G).

On October 19, 1982, the District 10 office sent a letter to Nalco Chemical Company's Permian Basin facility requesting that a detailed chemical analysis be performed on the liquid phase and any accumulated bottom sludge from the surface impoundment in order to determine appropriate waste management techniques required for the site (See Attachment H).

On December 17, 1982, Nalco Chemical Company submitted the information requested

in the October 19, 1982 letter sent from the District 10 office concerning analysis of the liquid portion and sludge contained in the surface impoundment. The waste water in the surface impoundment proved to be hazardous by characteristic by displaying a flashpoint of 120°F. (See Attachment I). Nalco also stated the waste water material was used for beneficial re-use and did not consider the liquid in the surface impoundment to be a waste.

On December 15, 1983, Nalco Chemical Company completed Affidavit of Exclusion Application No. 10630. The application states that no hazardous waste is stored, processed or disposed of on-site (See Attachment J).

On January 19, 1984, District 10 personnel visited Nalco Chemical Company's Permian Basin facility in Midland County for an industrial solid waste compliance inspection. During the inspection numerous violations were observed.

On January 26, 1984, 3 samples were taken from the surface impoundment located on Nalco Chemical Company's Permian Basin facility located in Midland County. The analysis revealed a mixture of aromatic solvents and compounds consisting of approximately 50% alkyl benzenes (from toluene to C<sub>5</sub> benzene) with the remainder being alkyl naphthalenes, substituted indenenes, indanes, biphenyls and a trace of aliphatic hydrocarbons. The liquid sample also had a flashpoint of 113°F. (See Attachment K).

On January 30, 1984, the District 10 office sent a Notice of Violation letter to Nalco Chemical Company's Permian Basin facility located in Midland County citing numerous violations of the Texas Administrative Code concerning hazardous industrial solid waste and industrial solid waste (See Attachment L).

On February 8, 1984 Nalco Chemical Company submitted a letter to our Austin headquarters Water Use Section to amend Texas Water Commission Permit No. 02040 to reflect the fact that the system for irrigation of the ground of waste from the surface impoundment is no longer in use and that the system was not in use after November 19, 1980.

On February 23, 1984, Nalco Chemical Company responded to the Notice of Violation letter dated January 30, 1984 sent from the District 10 office. Nalco Chemical Company stated that a TSD inspection was not appropriate at the time due to Nalco attempting to acquire an Affidavit of Exclusion and included a short summary of communications between Nalco Chemical Company and the Texas Department of Water Resources concerning the exclusion. Nalco's letter failed to address any of the numerous violations stated in the January 30, 1984 Notice of Violation letter (See Attachment M).

On April 24, 1984, a letter was sent to Nalco Chemical Company concerning Hazardous Waste Permit Application No. 10630. Upon review of the application for exclusion, Part A - Facility Background Information and the January 19, 1984 District 10 inspection report it has been determined that Nalco Chemical Company's Permian Basin facility in Midland County does not qualify for the claimed exemption and that the Part A hazardous waste permit application will remain on file and the Part B of the permit application will be requested at a later date (See Attachment N).

On May 7, 1984, Nalco Chemical Company submitted a letter to our Austin headquarters Solid Waste Section in response to the April 24, 1984 letter sent to Nalco Chemical Company from our Austin headquarters denying their hazardous waste permit exclusion. Nalco Chemical Company states that they disagree with the determination that "on-site storage and processing of hazardous waste is occurring at this facility" and that the materials which were considered waste in the April 24, 1984 letter from our Austin headquarters are being used beneficially.

On July 2, 1984, grab samples were taken of the liquid in the surface impoundment located on Nalco Chemical Company's Permian Basin facility located in Midland County. The analysis indicated elevated levels of benzenes, methylnaphthalenes and naphthalenes (See Attachment O).

On July 6, 1984, District 10 personnel visited Nalco Chemical Company's Permian Basin facility located in Midland County for an industrial solid waste compliance inspection. During the inspection numerous Texas Administrative Code and RCRA violations were observed concerning hazardous industrial solid waste and industrial solid waste management and practices.

On February 22, 1985, District 10 representatives visited Nalco Chemical Company's Permian Basin facility located in Midland County for an industrial solid waste compliance inspection. During this inspection Nalco Chemical Company was found to generate, process, store and dispose of hazardous industrial solid waste and industrial solid waste in a surface impoundment, a drum storage area and a waste pile located on their property.

Nalco Chemical Company was found to generate waste oilfield chemicals consisting of corrosion inhibitors, scale inhibitors and emulsion breakers. An 80'X70'X5' concrete lined hazardous waste surface impoundment (See Attachment P) is used to store the waste chemicals spilled during loading/unloading. An API separator is located in the north corner of the surface impoundment to skim floatable material on the surface of the impoundment for disposal. On the day of the inspection the liquid layer in the surface impoundment was elevated over the top of the API separator making the API separator inoperable. The contents of the pit are periodically transferred into tank trucks and taken to producing wells and used for flush water. This practice has been determined as unauthorized disposal of hazardous industrial solid waste.

During the February 22, 1985 inspection a drum storage site was observed (See Attachment P) on Nalco Chemical Company property. Approximately 50 empty or near empty drums labeled corrosion inhibitor, scale inhibitor, and emulsion breaker are located south of the warehouse on Nalco Chemical Company property. Many of the drums contained more than 2.5 centimeters of residue and are therefore not empty by definition. Also, considerable drum contents spillage onto the ground was observed at the drum storage site. The drum storage site and waste drums are not included on Solid Waste Registration No. 31479.

Nalco Chemical Company was also found to generate waste floor sweepings contaminated with corrosion inhibitor, scale inhibitor and emulsion breaker residues from their warehouse. These sweepings are disposed of on the west side of the warehouse located on Nalco Chemical Company property (See Attachment P). These waste floor sweepings are not listed on Solid Waste Registration No. 31479.

Nalco Chemical Company was also found to generate waste crankcase motor oils and waste kerosene that are stored in an above ground steel tank located on Nalco Chemical Company property. The waste crankcase oil and kerosene are then sold to an oil reclaimer to be recycled. The waste crankcase oil and waste kerosene are not reflected on Solid Waste Registration No. 31479.

## II. Waste Handling Facility

### A. Type of Facility

Oilfield chemical warehouse and transport facility.

### B. Description of Facility

Chemicals spilled during loading/unloading of transport trucks flows through a concrete lined drainage ditch to a 80'X70'X5' surface impoundment located on Nalco Chemical Company property. Waste chemicals stored in the surface impoundment include corrosion inhibitors, scale inhibitors and emulsion breakers. An API separator is located in the northeast corner of the surface impoundment to skim any floatable material on the surface impoundment.

A drum storage site consisting of empty or near empty drums of corrosion inhibitor, scale inhibitor and emulsion breaker is located directly south of the warehouse located on Nalco Chemical Company property. Many of the drums are laying on their sides or upside down resulting in considerable spillage of the drum contents onto the ground.

A wastepile consisting of floor sweepings from the chemical warehouse is located directly west of the warehouse on Nalco Chemical Company property. The sweepings have been contaminated from the various oilfield chemicals stored in the warehouse.

Waste crankcase oil and waste kerosene are stored in an above ground steel tank located at the service shop located on Nalco Chemical Company property. The waste oil and kerosene are sold to an oil reclaimer to be recycled.

## III. Water Quality Impact

### A. Surface Water

Hazardous industrial wastes and/or Class I non-hazardous waste are stored or disposed of in a concrete lined surface impoundment, a drum storage site and a wastepile located on Nalco Chemical Company property. Stormwater

run-on and run-off to the surface impoundment are controlled whereas the wastepile and the spillage at the drum storage site are unprotected from rainfall run-on or run-off and may therefore contaminate stormwater run-off during rainstorm conditions.

#### B. Ground Water

Nalco Chemical Company has stored hazardous waste in a concrete lined surface impoundment. The surface impoundment has no form of leak detection system or double liner and is impossible to inspect for malfunctions, ruptures or leaks. No wells were observed, and no ground water was analyzed from Nalco Chemical Company property. Storage of these wastes in the surface impoundment may therefore pose a threat to ground water and an imminent threat to the environment.

#### IV. Previous Enforcement Action

1. Letter dated November 18, 1980 indicating noncompliance with the Self Reporting requirements (See Attachment D).
2. Noncompliance letter dated October 19, 1982 (See Attachment H).
3. Noncompliance letter dated January 30, 1984 (See Attachment L).

#### V. Violations

Violations	Data Source	Permit or Other Requirement
1. Failure to update industrial solid waste registration 32181	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.2, .43
2. Failure to perform chemical analysis of industrial solid waste	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.6
3. Failure to determine if a waste is hazardous	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.62
4. Failure to comply with recordkeeping and reporting requirements	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.9, .10, .13, .70-.72
5. Failure to deed record	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.5, .220
6. Failure to develop and follow a written waste analysis plan	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.114
7. Failure to provide adequate security	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.115

Violations	Data Source	Permit or Other Requirement
8. Failure to prepare and follow a general inspection plan	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.116
9. Failure to comply with the requirements for ignitable, reactive or incompatible wastes	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.118
10. Failure to comply with shipping tickets, record keeping and reporting requirements	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.171-.177
11. Failure to provide financial assurance	Inspection Date: February 22, 1985	Texas Administrative Code Section 335.233 and 40 CFR, Part 265, Subpart H
12. Failure to manage a surface impoundment properly	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.281-.288
13. Failure to prepare a written facility closure/post-closure plan	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.211-.220
14. Failure to submit proof of sudden and nonsudden release liabilities coverage	Inspection Date: February 22, 1985	40 CFR, Part 265, Subpart H
15. Failure to implement a ground water monitoring program	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.191-.195
16. Failure to comply with pretransport and manifest requirements	Inspection Date: February 22, 1985	Texas Administrative Code Sections 335.61-.69

#### VI. Causes of Violations

Nalco Chemical Company has generated, stored, processed and disposed of hazardous industrial solid waste and industrial solid waste and has disposed of hazardous wastes at unauthorized facilities and has not complied with Texas Administrative Code Sections 335.1 through 335.479.

#### VII. Technical Recommendations

It is recommended that Nalco Chemical Company:

1. Update Industrial Solid Waste Registration No. 31479 to include all waste and waste management facilities.
2. Submit a hazardous waste determination of all industrial solid waste as required by Texas Administrative Code Section 335.62.
3. Keep records of all industrial solid waste and industrial hazardous waste storage, processing and disposal activities and retain such records for review by department personnel for a period of at least three (3) years as required by Texas Administrative Code Sections 335.9, .10, .13, .70-.72.
4. Deed record in the Midland County records all industrial solid waste and hazardous industrial solid waste disposal facilities as required by Texas Administrative Code Sections 335.5, .220.
5. Develop and follow a written waste analysis plan as required by Texas Administrative Code Section 335.114.
6. Provide adequate security to prevent unknowing entry of persons or livestock into waste management facilities as required by Texas Administrative Code Section 335.115.
7. Prepare and follow a general inspection plan to prevent malfunctions, deteriorations, operator errors, and discharges which may be causing, or may lead to release of hazardous waste constituents to the environment or a threat to human health as required by Texas Administrative Code Section 335.116.
8. Comply with the requirements for ignitable, reactive or incompatible wastes as required by Texas Administrative Code Section 335.118.
9. Comply with shipping tickets, record keeping and reporting requirements whenever shipments of hazardous waste are received from off-site or disposed of off-site as required by Texas Administrative Code Sections 335.171-.177.
10. Provide financial assurance for the costs of closure and post-closure plan as required by Texas Administrative Code Sections 335.211-.220.
11. Obtain and submit proof of sudden and nonsudden release liabilities coverage as required by 40 CFR, Part 265, Subpart H.
13. Implement a ground water monitoring program as required by Texas Administrative Code Sections 335.191-.195.
14. Cease immediately all unauthorized disposal of hazardous industrial solid waste as required by Texas Administrative Code Sections 335.61-.69.
15. Submit plans to:
  - a) Conduct a site survey to determine any horizontal and vertical extent of waste contamination, including contamination of ground water tables from the concrete lined surface impoundment.
  - b) Close the existing waste surface impoundment.



December 17, 1982

RECEIVED

DEC 20 1982

Texas Department of Water Resources  
District 10  
204-A West 5th Street  
Odessa, Texas 79761

DEPT. OF  
WATER RESOURCES  
DISTRICT 10

Attn: Mr. William F. Lockey

Re: Nalco Chemical Company  
Odessa, Texas Warehouse  
Solid Waste Notice of Registration  
No. 31479

Gentlemen:

In accordance with your request of October 19, 1982 we have sampled the water in the evaporation pond at Odessa and also the sediment in the pond for analysis to determine hazardous characteristics of these materials under RCRA.

As indicated on the enclosed analysis report, the sediment in the pond is non-toxic according to the EP Toxicity Test. However, the water (because of organic materials present) showed a flash point of 120°F.

As we have indicated to you earlier, the water collected in the pond is used for application of our materials at customer leases. None of this water has been taken out for off-site disposal in 1982. Materials collected in the skimming pit are likewise used for beneficial purposes by application together with treatment chemicals at customer leases.

As we have pointed out before, it is possible that the water (and floatable matter) collected in the waste pond may exhibit flash points less than 140°. However, since the materials are used for beneficial purposes, we do not consider these to be wastes.

If any additional information should be required, please let us hear from you.

Thank you for your cooperation.

Sincerely,

  
Karsten Odland, P.E.  
Environmental Control Manager  
KO:bq

COPIES TO

R. K. Gabel  
R. Howard

Flash Point of  
Odessa, Texas

Ronnie Howard submitted a sample from the subject pit which was undated. A PMCC flash point was determined using a computerized device which meets all of the pertinent regulations. The sample flashed at 49°C (120°F).



E. S. Littmann

ESL/dg

NALCO CHEMICAL COMPANY

ODESSA, TEXAS

"E.P. Toxicity"  
Sediment from Evap. Pit  
Sample Date: Unknown

Arsenic	<0.1 mg/L
Barium	<0.5 mg/L
Cadmium	<0.1 mg/L
Chromium Total	<0.2 mg/L
Lead	<0.2 mg/L
Mercury	<0.001 mg/L
Selenium	<0.1 mg/L
Silver	<0.1 mg/L

Analyses Certified by

Steve Wolf  
Steve Wolf - Manager  
Laboratory Services

Date: December 9, 1982

- 1) Sample was provided by Nalco Chemical Co. personnel.
- 2) Analyses were performed according to Standard Methods, 15th Edition and EPA Test Methods for Evaluating Solid Wastes, SW-846, 1980.

ATTACHMENT J

## Lab

JUL 10 1964

WALCO Chemical Co

constant  $\mu$

11/16/21/7

54. 22.2.51

~~THE~~ MINLAND

CV CORNO 1413

EXP. USING LOGIC TRICKS

Type facility: ☐ Drum; ☐ Tank; ☒ Impoundment; ☐ Landfill

☐ Waste pile: ☐ Landfarm: ☐ Other: \_\_\_\_\_

Time Collected

(am. org)

Date Shipped

Add. COC #s

ODOR: ☒ Yes: ☐ No: Describe

Strong organic

RECEIVED  
Parameter Value 7  
SEP 17 1984  
DEPT. OF WATER RESOURCES  
DISTRICT 10

SEP 11 1984

Org. No.

4/0 Work

**Material Sampled:**

☐ Solid waste (W): ☒ Liquid waste (L): ☐ Soil (E): ☐ Well (M):☐ Stream (S); ☐ Other (O)

### Comments

Organic Sample - Leach metals if applicable

Run Organics on Auxiliary TAG.

(continued on back)

**Lab Only**

**data**

rec'd: ... 5 1 1 2

APR 31 1984

Analyst sign.

Preservation: ☒ None; ☒ Ice; ☐  $H_2SO_4$ ; ☐  $HNO_3$

Other Not Specified

### Auxiliary Tags

LEACHATE: ☒ EP Toxicity Series: ☐ TDWR

30	Code	35	Parameter Value	44	Code	49	Parameter Value	58	Code	63	Parameter Value	70
PHT				MSPRIL				MERCURY $\mu\text{g/L}$				
0	0	4	3				57					20
COD				BARIUM				SELENIUM				
0	0	0	0				Interference					< 200
TOC				CADMIUM $\mu\text{g/L}$				SILVER				
0	0	0	0				< 100					< 100
GC/MS				CHROMIUM $\mu\text{g/L}$								
							700					
				LEAD $\mu\text{g/L}$				Note: Leachate not applicable				
							< 200					

TEXAS DEPARTMENT OF HEALTH  
GC/MS ANALYSIS REPORT  
EPA PRIORITY POLLUTANTS

EARL HOGBERG DATE: 8/31/84

TDH SAMPLE NUMBER: E114-0779  
TDH SAMPLE NUMBER: SW02821

SPACES BELOW INDICATE NONE DETECTED

SAMPLE TYPE: LIQUID WASTE

SAMPLE CONDITION: INTACT

HYDROCARBONS IN (CHECK ONE) ( ) MICROGRAMS/LITER (✓) MILLIGRAMS/KILOGRAM:

ANT	NAME	ANT	NAME	ANT
<700	4-CHLORO-3-CRESOL	<700	4-NITROPHENOL	<700
↓	2,4,6-TRICHLOROPHENOL	↓	2,6-DINITRO-2-CRESOL	↓
↓	2,4-DINITROPHENOL	↓	PENTACHLOROPHENOL	↓
↓	2,4-DINITROPHENOL			

SEMI-VOLATILES IN (CHECK ONE) ( ) MICROGRAMS/LITER (✓) MILLIGRAMS/KILOGRAM:

ANT	NAME	ANT	NAME	ANT
<350	ACENAPHTHYLENE	<350	FLUORANTHENE	<350
↓	DIMETHYL PHTHALATE	↓	PYRENE	↓
↓	2,6-DINITROTOLUENE	↓	BENZIDINE	↓
↓	ACENAPHTHENE	↓	DUTYL BENZYL PHTHALATE	↓
↓	2,4-DINITROTOLUENE	↓	BENZ(a)ANTHRACENE	↓
↓	FLUORENE	↓	CHRYSENE	↓
↓	4-CHLOROPHENYL PHENYL ETHER	↓	3,3'-DICHLOROBENZIDINE	↓
↓	DIMETHYL PHTHALATE	↓	BIS-(2-ETHYLHEXYL)PHTHALATE	↓
↓	DIPHENYLAMINE	↓	DI-n-OCTYL PHTHALATE	↓
↓	N-NITROSDIPHENYLAMINE	↓	BENZ(a)FLUORANTHENE	↓
↓	1,2-DIPHENYLHYDRAZINE	↓	BENZ(a)PYRENE	↓
↓	4-BROMOPHENYL PHENYL ETHER	↓	INDENO(1,2,3-cd)PYRENE	↓
↓	HEPTACHLOROBENZENE	↓	DIBENZ(a,h)ANTHRACENE	↓
↓	PHENANTHRENE	↓	BENZ(a,h,i)PERYLENE	↓
↓	ANTHRACENE	↓		↓
↓	DI-n-BUTYL PHTHALATE	↓		↓

HYDROLYZABLES IN (CHECK ONE) ( ) MICROGRAMS/LITER (✓) MILLIGRAMS/KILOGRAM:

ANT	NAME	ANT	NAME	ANT
<200	ALDRIN	<200	Beta-ENDOSULFAN	<200
↓	4,4'-DDE	↓	ENDOSULFAN SULFATE	↓
↓	DIELDRIN	↓	ENDRIN	↓
↓	4,4'-DDD	↓	alpha-BHC endosulfan	↓
↓	4,4'-DDT	↓	HEPTACHLOR EPOXIDE	↓

VOLATILE ORGANICS IN (CHECK ONE) ( ) MICROGRAMS/LITER ( ) MILLIGRAMS/KILOGRAM:

ANT	NAME	ANT	NAME	ANT
---	1,2-DICHLOROETHANE	---	1,1,2-TRICHLOROETHANE	---
---	CARBON TETRACHLORIDE	---	2-CHLOROETHYL VINYL ETHER	---
---	BROMODICHLOROETHANE	---	TRICHLOROETHYLENE	---
---	BENZENE	---	BROMOFORM	---
---	DIBROMOCHLOROETHANE	---	TOLUENE	---
---	1,1,1-TRICHLOROETHANE	---	ETHYL BENZENE AND/OR n-XYLENE	---
---	1,2-DICHLOROPROPANE	---	1,1,2,2-TETRACHLOROETHANE	---
---	trans-1,3-DICHLOROPROPYLENE	---	TETRACHLOROETHYLENE	---
---	cis-1,3-DICHLOROPROPYLENE	---	CHLOROBENZENE	---

TENTATIVE IDENTIFICATION OF THE TEN LARGEST NON PRIORITY POLLUTANT PEAKS  
BY COMPARISON WITH EPA/NIH MASS SPECTRAL LIBRARY. QUANTITATION AS DIO-ANTHRACENE  
IS PROVIDED, AND THE VALUES SHOULD BE REGARDED AS APPROXIMATE.

TENTATIVE  
COMPOUND  
IDENTIFICATION

APPROXIMATE CONCENTRATION:  
AS D-10 ANTHRACENE  
( ) MICROGRAMS/LITER  
(✓) MILLIGRAMS/KILOGRAM

C4-benzenes	32000
C5-benzenes	6700
2-methylnaphthalene	2300
1-methylnaphthalene	1400

COMMENTS AND OTHER REQUESTED ANALYSES:

SIGNATURE

DATE

Richard A. Albert 8/31/84

ATTACHMENT P